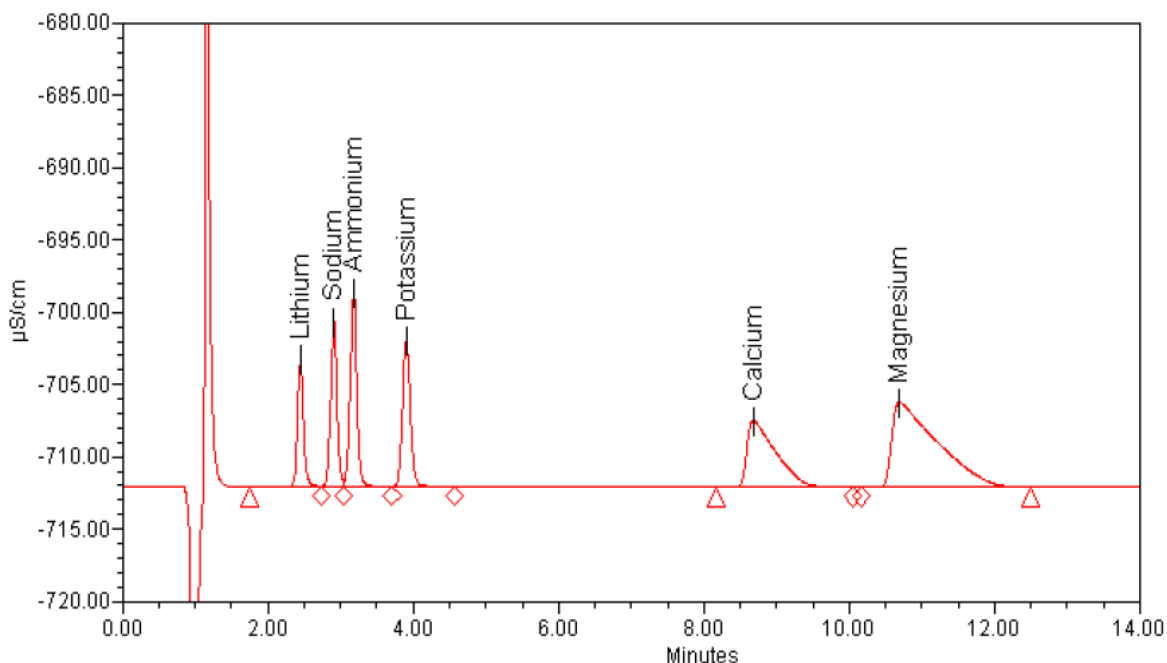


Parallel cation (and anion) analysis applying the Metrohm IC Driver 2.0 for Empower



Parallel anion and cation analysis is typically used when both anions and cation have to be analyzed in a sample. Here, the cation part of such an analysis is given. The sample is injected to the cation channel via the injector of the IC instrument bypassing the injector on the 889 IC Sample Center. The whole system is controlled by Empower applying the Metrohm IC Driver 2.0. For anion analysis, see AN-S-350.

Results

Cation	Conc. [mg/L]	RSD [%, n = 6]	Cation	Conc. [mg/L]	RSD [%, n = 6]
Lithium	1	0.2	Potassium	10	0.4
Sodium	5	0.3	Calcium	10	0.5
Ammonium	5	0.3	Magnesium	10	0.4

Sample

Standard solution

Sample preparation

None

Columns

Metrosep C 4 - 100/4.0	6.1050.410
Metrosep C 4 Guard/4.0	6.1050.500

Solutions

Eluent	1.7 mmol/L nitric acid 0.7 mmol/L dipicolinic acid
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Analysis

Direct conductivity detection

Instrumentation

940 Professional IC Vario ONE/SeS/HPG	2.940.1440
IC Conductivity Detector	2.850.9010
889 IC Sample Center - cool	2.889.0020
Metrohm IC Driver 2.0 for Empower	6.6070.200
Empower 3.0	

Parameters

Flow rate	0.9 mL/min
Injection volume	20 μ L
P _{max}	25 MPa
Recording time	20 min
Column temperature	30 °C

